Koch, Kristine

From: Koch, Kristine

Sent: Thursday, October 16, 2014 9:19 AM

To: Amanda Shellenberger

Cc: Bob Wyatt; Carl Stivers; Jim McKenna (jim.mckenna@verdantllc.com); King, Todd W.; Mullin,

Jeanette; Patty Dost; Scott Coffey (coffeyse@cdmsmith.com); Sheldrake, Sean; Jennifer

Woronets

Subject: RE: Portland Harbor - LWG response to EPA comments on LWG core profile maps

Amanda, We've reviewed your response and agree that it meets the objective of our request.

Thank you.

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, Washington 98101-3140

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From: Amanda Shellenberger [mailto:ashellenberger@anchorqea.com]

Sent: Wednesday, October 15, 2014 4:53 PM

To: Koch, Kristine

Cc: Bob Wyatt; Carl Stivers; Jim McKenna (jim.mckenna@verdantllc.com); King, Todd W.; Mullin, Jeanette; Patty Dost;

Scott Coffey (coffeyse@cdmsmith.com); Sheldrake, Sean; Jennifer Woronets

Subject: RE: Portland Harbor - LWG response to EPA comments on LWG core profile maps

Kristine -

Thank you for the phone call yesterday to clarify request #6 below. Based on our conversation, you asked us to highlight cores with subsurface concentrations that exceed each RAL (Alternative B through G) with a different color. We propose that we do this by shading the background of each core profile "box" in a color corresponding to each RAL. So a core profile will have a white background if no RALs are exceeded in the subsurface or will have a different color background based on which RAL is exceeded in the subsurface. Please confirm this will meet the objectives of your request.

Thanks!

Amanda

From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]

Sent: Tuesday, October 07, 2014 1:07 PM

To: Jennifer Woronets

Cc: Amanda Shellenberger; Bob Wyatt; Carl Stivers; Jim McKenna (jim.mckenna@verdantllc.com); King, Todd W.; Mullin,

Jeanette; Patty Dost; Scott Coffey (coffeyse@cdmsmith.com); Sean Sheldrake

Subject: RE: Portland Harbor - LWG response to EPA comments on LWG core profile maps

Please see EPA's responses below to the comments you submitted by email on September 24, 2014 regarding EPA requested revisions to the core profile maps.

- 1. EPA Comment: Please proceed with developing similar core profile maps (incorporating EPA comments below) for the other focused COCs.
 - a. LWG Response: Per our cover email of September 3, the LWG intends to generate core profile maps for the other COCs once RAL issues for these COCs are resolved or EPA issues a draft of FS Section 3. This avoids extensive rework of the maps for these other COCs should EPA make changes to the RALs. EPA Response: Response is acceptable. EPA will provide RALs for the other focused COCs when EPA identifies them as finalized.
- 2. EPA Comment: For SDUs with more than one map, the map should have an inset of the SDU with an outline over the featured area, so we know the map's location in the SDU.
 - a. LWG Response: We will add these insets to the next version of the PCB profile maps.

 EPA Response: Response is acceptable. In addition, please make sure the SDU boundary appears on the maps. The first page of SDU RM2E does not have the boundary.
- 3. EPA Comment: It is unclear why the figure legend states "elevation change", e.g. "maximum elevation change". Why isn't it just max or min elevation?
 - a. LWG Response: For the maps, the figure is showing elevation change. That is, the maps show whether the elevation in a particular location increased or decreased over the time frame. This is the same as the Tittabawassee River example that EPA cited with the request. We could change this wording to terminology EPA specifies if that would help clarify the figure. For the core profile legend, we can change the PCB figures to read "minimum observed bed elevation" and "maximum observed bed elevation", which is a better description of what is shown.

EPA Response: The suggested revisions are acceptable to EPA.

- 4. EPA Comment: The core symbols and labels are missing in the top bathymetry panels for SDU RM9W figures and some of the Swan Island figures.
 - a. LWG Response: We will update the maps to reflect this edit. *EPA Response: Response is acceptable.*
- 5. EPA Comment: Present polygon outlines in the top bathymetry panels representing the areas for RALs B through G using the color coding in the Legend.
 - a. LWG Response: This was not part of the original request. However, we can add PCB RAL contours to the PCBs figures based on RALs B through G. By "polygons", we assume that EPA is requesting Natural Neighbor contour outlines for the specified PCB RAL series. If not, please clarify.

 EPA Response: In the top bathymetry panels, present the EPA PCB RALs. We believe these were previously provided to LWG as GIS layers, but we can provide them again if needed.
- 6. EPA Comment: Identify in the bottom core profile panel what RALs each core fits within.
 - a. LWG Response: This was not part of the original request. We believe EPA is requesting that the core profile be identified by the surface RAL contour it resides within. For example, if a particular core lay within an area between surface sediment contours of 1000 ppb (RAL B) and 750 ppb (RAL C), the core would be labeled "RAL C" indicating the surface sediment concentrations in this area are above RALs G, F, E, D, and C, but not above RAL B. If EPA's comment intended something else, please clarify. Note that this labeling will take some time to accomplish because we will need to apply the RAL contours to this GIS map set, conduct queries in GIS for each core, and then enter those results into the figures. EPA Response: EPA would like the bottom core profiles that are within a specified concentration range

based on the legend be highlighted visually as a group (e.g., all the cores within the RAL B contour would

be highlighted together with subsurface concentrations greater than 1000 ppb, similar to the attached Tittabawassee River example, then additional cores within the RAL C contour would be highlighted in another color, and so forth to RAL G so it is easy to see visually which cores reside within each RAL footprint.

- 7. EPA Comment: The last page for SDU RM11E should be broken up into additional pages. As currently presented, the core profiles are still too dense and do not line up well with the position of the cores shown in the map panels above.
 - a. LWG Response: We tried to balance providing a sufficiently high resolution for each map with placing each map on a consistent scale. We can break SDU RM11E into additional pieces by reducing the scale, but please note the new scale will be different from the scale for the other SDUs. Please verify this is what EPA desires.

EPA Response: It is acceptable for the SDU scales to vary so that the maps are easier to read. In addition, EPA would like the spatial arrangement of the core profiles on all the maps improved if possible. For example, in the first page of SDU RM2E, C009 is parallel to the shore with C01-1, but offset offshore in the core profile. C602 is offshore compared to C009, but shown as parallel to it in the core profiles.

Let me know if you have further questions.

Thanks,

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, Washington 98101-3140

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From: Jennifer Woronets [mailto:jworonets@anchorgea.com]

Sent: Wednesday, September 24, 2014 10:55 AM

To: Koch, Kristine

Cc: Amanda Shellenberger; Bob Wyatt; Carl Stivers; Jennifer Woronets; Jim McKenna (jim.mckenna@verdantllc.com);

King, Todd W.; Mullin, Jeanette; Patty Dost; Scott Coffey (coffeyse@cdmsmith.com); Sheldrake, Sean

Subject: RE: Portland Harbor - LWG response to EPA comments on LWG core profile maps

Kristine,

The following email is provided on behalf of Carl.

Kristine – Please see our responses to your comments on the core profile maps. We are working on revising the PCB core profile maps consistent with these responses, subject to a few EPA clarifications, and will resubmit the profile maps to EPA soon.

1. EPA Comment: Please proceed with developing similar core profile maps (incorporating EPA comments below) for the other focused COCs.

- a. LWG Response: Per our cover email of September 3, the LWG intends to generate core profile maps for the other COCs once RAL issues for these COCs are resolved or EPA issues a draft of FS Section 3. This avoids extensive rework of the maps for these other COCs should EPA make changes to the RALs.
- 2. EPA Comment: For SDUs with more than one map, the map should have an inset of the SDU with an outline over the featured area, so we know the map's location in the SDU.
 - a. LWG Response: We will add these insets to the next version of the PCB profile maps.
- 3. EPA Comment: It is unclear why the figure legend states "elevation change", e.g. "maximum elevation change". Why isn't it just max or min elevation?
 - a. LWG Response: For the maps, the figure is showing elevation change. That is, the maps show whether the elevation in a particular location increased or decreased over the time frame. This is the same as the Tittabawassee River example that EPA cited with the request. We could change this wording to terminology EPA specifies if that would help clarify the figure. For the core profile legend, we can change the PCB figures to read "minimum observed bed elevation" and "maximum observed bed elevation", which is a better description of what is shown.
- 4. EPA Comment: The core symbols and labels are missing in the top bathymetry panels for SDU RM9W figures and some of the Swan Island figures.
 - a. LWG Response: We will update the maps to reflect this edit.
- 5. EPA Comment: Present polygon outlines in the top bathymetry panels representing the areas for RALs B through G using the color coding in the Legend.
 - a. LWG Response: This was not part of the original request. However, we can add PCB RAL contours to the PCBs figures based on RALs B through G. By "polygons", we assume that EPA is requesting Natural Neighbor contour outlines for the specified PCB RAL series. If not, please clarify.
- 6. EPA Comment: Identify in the bottom core profile panel what RALs each core fits within.
 - a. LWG Response: This was not part of the original request. We believe EPA is requesting that the core profile be identified by the surface RAL contour it resides within. For example, if a particular core lay within an area between surface sediment contours of 1000 ppb (RAL B) and 750 ppb (RAL C), the core would be labeled "RAL C" indicating the surface sediment concentrations in this area are above RALs G, F, E, D, and C, but not above RAL B. If EPA's comment intended something else, please clarify. Note that this labeling will take some time to accomplish because we will need to apply the RAL contours to this GIS map set, conduct queries in GIS for each core, and then enter those results into the figures.
- 7. EPA Comment: The last page for SDU RM11E should be broken up into additional pages. As currently presented, the core profiles are still too dense and do not line up well with the position of the cores shown in the map panels above.
 - a. LWG Response: We tried to balance providing a sufficiently high resolution for each map with placing each map on a consistent scale. We can break SDU RM11E into additional pieces by reducing the scale, but please note the new scale will be different from the scale for the other SDUs. Please verify this is what EPA desires.

Thanks.

Carl

Please let us know if you have any questions.

Thank you, Jen Woronets © Anchor QEA, LLC <u>jworonets@anchorqea.com</u> 421 SW Sixth Avenue, Suite 750 Portland, OR 97204 503-972-5014

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From: Koch, Kristine [mailto:Koch.Kristine@epa.gov]
Sent: Wednesday, September 17, 2014 9:54 AM

To: Bob Wyatt; Jim McKenna (<u>iim.mckenna@verdantllc.com</u>)
Cc: Jennifer Woronets; Sean Sheldrake; Amanda Shellenberger
Subject: Portland Harbor - EPA comments on LWG core profile maps

Bob and Jim,

The following is a list of comments based on a review by EPA and their technical team of the core profile maps for Total PCBs provided by LWG on September 3, 2014. We appreciate the effort that went into developing and presenting this work product. It provides a useful summary of the subsurface contamination within the areas of primary concern.

- 1. Please proceed with developing similar core profile maps (incorporating EPA comments below) for the other focused COCs.
- 2. For SDUs with more than one map, the map should have an inset of the SDU with an outline over the featured area, so we know the map's location in the SDU.
- 3. It is unclear why the figure legend states "elevation change", e.g. "maximum elevation change". Why isn't it just max or min elevation?
- 4. The core symbols and labels are missing in the top bathymetry panels for SDU RM9W figures and some of the Swan Island figures.
- 5. Present polygon outlines in the top bathymetry panels representing the areas for RALs B through G using the color coding in the Legend.
- 6. Identify in the bottom core profile panel what RALs each core fits within.
- 7. The last page for SDU RM11E should be broken up into additional pages. As currently presented, the core profiles are still too dense and do not line up well with the position of the cores shown in the map panels above.

Please contact me if you need clarification on any of the above comments. Also, please provide an email response addressing the question under #3 above and confirming the LWG agrees to incorporate these comments into revised core profile maps for Total PCBs and the maps to be developed for the other focused COCs.

Regards,

Kristine Koch Remedial Project Manager USEPA, Office of Environmental Cleanup

U. S. Environmental Protection Agency Region 10 1200 Sixth Avenue, Suite 900, M/S ECL-115 Seattle, Washington 98101-3140

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